

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:

5 a page memory to store image data for every page;

image rotating means for rotating the image data stored in the page memory at a specified angle;

image correction means for correcting pixels of which positional relationship was changed from that before rotation as a result of the rotation of the image data by the image rotating means to come near  
10 to the positional relationship before the rotation; and

image forming means for forming images based on the image data of which the positional relationship of pixels was corrected by the image correction means.

15

2. An image forming apparatus comprising:

a page memory to store image data for every page;

image rotating means for rotating the image data stored in the page memory at a specified angle;

20 corrected pattern holding means for regarding pixels requiring correction as replacing subject pixels when the image rotating means rotates the image data and holding the image data after correcting a matrix pixel array pattern including the replacing subject pixels as noteworthy pixels;

25 image data searching means for searching image data in accord with the matrix pixel array pattern held by the corrected pattern

holding means out of rotary processed image data by the image rotating means;

image correcting means for correcting the replacing subject pixels with the pixel array pattern when the image data searching means detect the image data in accord with the pixel array pattern; and

image forming means for forming an image based on the image data corrected by the image correcting means.

10        3. The image forming apparatus according to claim 2, wherein the noteworthy pixels are located at the central portion of the matrix pixel array pattern.

4. The image forming apparatus according to claim 2, wherein  
15 the corrected pattern holding means makes pixels of which positional relationship differs from that before the rotating when halftone processed image data is rotated as pixels subject to replacement and holds corrected pixel data of which positional relationship was corrected for the matrix pixel array pattern  
20 including the replacing subject pixels as noteworthy pixels.

5. An image forming apparatus comprising:  
a page memory to store image data for every page;  
image rotating means for rotating the image data stored in the  
25 page memory at a specified angle;  
first pattern holding means for regarding pixels required for

correction as rotation-subject pixels when the image rotation means rotates the image data and for holding first image pixel data that are corrected with respect to a matrix pixel array pattern including the rotation subject pixels as noteworthy pixels;

5       second pattern holding means for regarding pixels required for correction as non-rotation subject pixels when the image rotation means does not rotate the image data and for holding second image pixel data that are corrected with respect to a matrix pixel array pattern including the non-rotation subject pixels as noteworthy

10   pixels;

image correction means for replacing the first image pixel data with noteworthy pixels of the image data that are in consistent with the first image pixel data when the image rotation means rotates the image data stored in the page memory and for replacing the  
15   second image pixel data with noteworthy pixels of the image data that are in consistent with the second image pixel data when the image rotation means does not rotate the image data stored in the page memory; and

image forming means for forming an image based on the image  
20   data corrected by the image correction means.

6. An image forming method comprising:

storing image data for every page;

rotating the stored image data at a specified angle;

25   correcting pixels in the rotated image data of which positional relationship before and after the rotation has changed to come near

the positional relationship before the rotation; and  
forming an image based on the corrected image data.

7. An image forming method comprising:

5 regarding pixels requiring correction as replacing subject pixels  
when image data is rotated at a specified angle and holding the  
image data after correcting a matrix pixel array pattern including  
the replacing subject pixels as noteworthy pixels;

storing image data for every page;

10 rotating the stored image data at a specified angle;

searching image data in accord with the matrix pixel array  
pattern held out of rotary processed image data;

correcting by replacing subject pixels with the pixel array  
pattern when the image data in accord with the pixel array pattern

15 is detected; and

forming an image based on the corrected image data.

8. An image forming apparatus according to claim 6, wherein  
the correction step decides pixels of which positional relationship  
20 differ from that before the rotation when halftone processed image  
data was rotated as pixels subject to replacement and holds the  
pixel data of which positional relationship was correct for the matrix  
pixel array pattern including the subject pixels as noteworthy  
pixels.

25

9. An image forming method comprising:

a first holding step to regard pixels required for correction as rotation subject pixels when the image is rotated at a specified angle and for hold first image pixel data that are corrected with respect to a matrix pixel array pattern including the rotation subject pixels as  
5 noteworthy pixels;

a second holding step to regard pixels required for correction as non-rotation subject pixels when the image data is not rotated and hold second image pixel data that are corrected with respect to a matrix pixel array pattern including the non-rotation subject pixels  
10 as noteworthy pixels;

a storing step to store image data for every page;

a rotation step to rotate the stored image data at a specified angle;

a correction step to replace pixels at the center of image data  
15 conforming to the matrix pixel array pattern held in the first holding step when image data stored in the storing step is rotated and replaced in the rotation step and when not replaced by rotating, replace pixels at the center of image data conforming to the matrix pixel array pattern held in the second holding step to the corrected  
20 matrix pixel data of the pixel array pattern, and

a correction step to replace the first image pixel data with noteworthy pixels of the image data that are in consistent with the first image pixel data when the image rotation step rotates the image data stored in the storing step and to replace the second  
25 image pixel data with noteworthy pixels of the image data that are in consistent with the second image pixel data when the image is not

rotated; and

a step to form an image based on the image data corrected in the correction step.

5        10. An image forming apparatus comprising:

a page memory configured to store image data for every page;

an image processor connected to the page memory, wherein the page memory rotates the image data stored in the page memory at a specified angle and corrects pixels of which positional relationship was changed from that before rotation as a result of the rotation of the image data to come near to the positional relationship before the rotation; and

a print engine configured to form images based on the image data of which positional relationship of pixels was corrected by the image processor.

11. An image forming apparatus comprising:

a page memory configured to store image data for every page;

an image processor connected to the page memory, wherein the

image processor rotates the image data stored in the page memory at a specified angle;

a pattern replacing table configured to make pixels requiring correction when rotating the image data by the image processor and hold corrected pixel data for a matrix pixel array pattern having a pixel located at a center thereof with the pixel subject to replacement;

wherein the image processor searches the image data in accord with the matrix pixel image array pattern held by the pattern replacing table out of rotary processed image data and replaces a pixel subject to replacement that is the central pixel of the image data when image data in accord with the matrix pixel image array pattern is searched; and

a print engine configured to form images based on the image data of which positional relationship of pixels was corrected by the image processor.

10